

REMARKS

Reconsideration and allowance of this application, as amended, are respectfully requested. The written description has been amended to correct a minor typographical error. No new matter has been introduced by this Amendment. Claims 1-39 are pending in the application.

35 U.S.C. § 103(a) - Addiego

Claims 1-4, 12, 13 and 18 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Addiego, U.S. Patent Number 5,917,588 (hereinafter “Addiego”). The rejection is respectfully traversed and reconsideration is respectfully requested.

Claim 1 recites a method of operating an inspection apparatus to inspect a device. The method comprises the steps of “selecting at least two of the plurality of displayed images [and] deriving a spatial relationship between the selected images.” Applicant respectfully submits that Addiego fails to teach or suggest the recited method.

Addiego shows an inspection system that determines, locates and classifies defects on a wafer surface. The results of the inspection are printed, transmitted, and/or displayed on a system monitor. During wafer production, the Addiego system continuously inspects specimen wafers and looks for defects present on each specimen wafer. If defects are found, the system either alerts an operator or uploads the defect information to a host computer. The Addiego system determines the presence of defects from acquired image data of a specimen wafer by analyzing the difference image of two adjacent reticle fields (col. 8, lines 60-63).

Addiego fails to teach or suggest the claimed features that at least two of the plurality of displayed images are actually selected and that the selected images are used to derive a spatial relationship. According to the present invention, multiple desired images of an object being inspected are used as a pattern to be recognized during a pattern recognition analysis to detect defects on the object. As shown at step 212 in Fig. 5 of the

present application, the user selects multiple images of the object. Once the multiple desired images are selected, a relationship between the images is determined (step 214). This feature of the claimed invention allows the user to select the images to be searched so undesirable images will not become part of the recognition process – this is something the Addiego system cannot do because Addiego fails to teach selecting images to be used for the pattern recognition process. In Addiego, a difference image comprised of adjacent images are always used. There is no feature to select the images used for pattern recognition (as recited in claims). As such, Addiego is different than the claimed invention. Thus, the claimed invention is believed to be patentable over Addiego. Claims 2-4, 12, 13 and 18 depend from claim 1 and are allowable along with claim 1. Reconsideration and withdrawal of the rejection are respectfully requested.

35 U.S.C. § 103(a) - Addiego in view of Levy et al.

Claims 5-11 and 14-17 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Levy et al., U.S. Patent Number 4,579,455 (“Levy”). The rejection is respectfully traversed and reconsideration is respectfully requested.

Claims 5-11 and 14-17 depend from claim 1. As set forth above, Addiego fails to teach the claim 1 method steps of “displaying a plurality of images corresponding to respective areas of the device; selecting at least two of the plurality of displayed images [and] deriving a spatial relationship between the selected images.” Levy also fails to teach “displaying a plurality of images corresponding to respective areas of the device; selecting at least two of the plurality of displayed images [and] deriving a spatial relationship between the selected images.”

Levy by contrast shows a representation of two die patterns illustrating relative positioning of window matrices used for comparisons. The comparison matrices are formed across the representation of the die patterns to compute error values until the entire area of each representation is covered. Levy fails to suggest the claimed feature of selecting at least two of the plurality of displayed images whereupon a spatial relationship between the selected images is derived. As such, the combination of Levy and Addiego also fails to

teach the claimed invention. Reconsideration and withdrawal of the rejection are respectfully requested.

Claims 19-39

Claims 19-39 stand rejected for the same reasons given for claims 1-18. Claims 19-39 recite similar limitations as claims 1-18 and are believed to be allowable for the same reasons set forth above and on their own merits.

Conclusion

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to withdraw the outstanding rejection of the claims and to pass this application to issue.

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Respectfully submitted,

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